

# EXHIBIT B

**Table 1** represents changes to the redress models used to develop preliminary estimates of the national abatement costs to address the opioid epidemic. Please refer to Paragraphs #176-#180 in my report for additional details.

<b>Table 1. Redress Category and Changes to Redress Models.</b>	
Abatement Category	Changes to Redress Models
1. Medications for Opioid Use Disorder (MOUD)	1. Modified the intervention to reduce churning of patients through MOUD so as to take effect on only active OUD population and not inactive OUD population 2. Updated from 2% annual compounding to 3.24% annual non-compounding inflation
2. Criminal Justice Interventions	1. Changed drug court population from 250,000 to 120,000 2. Changed post incarceration population from 250,000 to 120,000 (Assumed. Zero sum with drug court population [number of individuals entering = number exiting]) 3. Revised estimated of the proportion of post-incarceration population in need of transitional housing and social services to 25% of those released with opioid use (Assumed, informed by Bureau of Justice Statistics) 4. Updated sources file to reflect all inputs and changes
3. Mass Media Campaign	None
4. Naloxone	1. Updated sources file to reflect all inputs and changes
5. Adolescents	None
6. Academic Detailing	None
7. Pregnant Women/Neonates	None
8. Foster Care	Updated sources file to reflect all inputs and changes
9. Hepatitis C/HIV	1. Changed annual cost of HCV treatment from \$50,400 to \$26,400 2. Updated sources file to reflect all inputs and changes
10. Drug Disposal	Updated sources file to reflect all inputs and changes
11. Surveillance	None
12. Harm Reduction	1. Changed assumption about number of supervised consumption facilities opening in the US each year to 10 instead of 100 SCFs 2. Changed fentanyl testing strip population from 2.5 million to 500,000 (Assumed. 50% of heroin OUD are reached by SSPs [313,000], and assumed 10-15% of those with prescription OUD are also reached, so total about 500,000) 3. Changed average number of times individual tests from 2.8 to 1.5 times per day 4. Updated sources file to reflect all inputs and changes
13. PDMPs	None
14. Research	None
15. Law Enforcement	1. Changed number of detectives required for a large police department for specialized overdose units from 10 to 7 2. Changed number of detectives required for a mid-size police department for specialized overdose units from 4 to 3 3. Updated frequency of anti-stigma training to annually for all police officers and added correctional officers 4. Updated sources file to reflect all inputs and changes

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In addition to the changes above, I now provide four contrasting ways of considering the 10-year abatement costs. The reason that this is important is that since the epidemic will continue to evolve, any estimated costs for Abatement Year 1 may be more, or less, in Abatement Year 2, depending on how things change. For example, based on 2010-2017, one can estimate 2018 naloxone costs. But what will be the costs for naloxone required in 2023? **Table 2** depicts the results of these analyses, which use different “trend ratios” to capture changes in the epidemic over time. Please note that some redress categories (e.g., media campaign, PDMPs) are assumed to be constant rather than multiplied by a trend ratio for the years examined.

**Scenario A** depicts estimates using our original baseline trend ratios from the model submitted April 3, 2019. These ratios represent the degree to which specific target populations, as outlined in the second tab of the “Redress Models” Excel workbook, change from 2019 to 2028 relative to 2018 (baseline year) under the status quo, which includes an assumption of increased uptake of medications for opioid use disorder (MOUD) and decreased churn among those on MOUD.

**Scenario B** depicts abatement estimates based on an updated iteration of our model. In addition, in contrast to **Scenario A**, this scenario: (1) does not incorporate trend ratios; (2) does not assume increased uptake and reduced churning of MOUD; (3) includes updated estimates for some categories as outlined in **Table 1** above; and (4) does not include infrastructure cost for increased uptake MOUD. Thus, it simply multiplies Abatement Year 1 costs by 10, after accounting for inflation, to derive 10-year estimates.

**Scenario C** is identical to **Scenario A** but includes updates to the redress models as outlined in **Table 1**.

**Scenario D** applies trend ratios based on an assumption that comprehensive interventions take place to: (1) reduce opioid prescribing; (2) expand uptake and reduce churning of medications for opioid use disorder (MOUD); and (3) distribute naloxone. Thus, these “intervention trend ratios” represent the proportions by which populations targeted by the various interventions change from 2019 to 2028 relative to 2018 (baseline year) as a result of the interventions implemented. The model also includes graphical representations of these interventions (tab 10 of the model Excel workbook).

<b>Table 2. Preliminary Estimates of Abatement Costs Using Different Methods of Summing Cost Over Time.</b>				
<b>Abatement Category</b>	<b>10-Year Cost (\$ Billions) Estimates</b>			
	<b>Scenario A</b>	<b>Scenario B</b>	<b>Scenario C</b>	<b>Scenario D</b>
	<b>April 3 (baseline trend ratios)</b>	<b>April 17 (no trend ratios)</b>	<b>April 17 (baseline trend ratios)</b>	<b>April 17 (interventions trend ratios)</b>
1. Medication-Assisted Treatment	\$169.1	\$72.9	\$173.0	\$164.9
2. Criminal Justice Interventions	\$41.7	\$6.9	\$7.0	\$6.4
3. Mass Media Campaign	\$5.7	\$5.7	\$5.7	\$5.7
4. Naloxone	\$9.3	\$8.6	\$8.5	\$7.8
5. Adolescent Interventions	\$20.4	\$21.3	\$20.4	\$15.1
6. Academic Detailing	\$3.9	\$3.9	\$3.9	\$3.9
7. Pregnant Women/Neonates	\$10.7	\$11.2	\$10.7	\$7.9
8. Foster Care Interventions	\$37.5	\$35.6	\$37.6	\$20.7
9. Hepatitis C/HIV Interventions	\$32.5	\$23.8	\$23.9	\$20.9
10. Drug Disposal Programs	\$11.1	\$11.1	\$11.1	\$11.1
11. Surveillance	\$2.2	\$2.2	\$2.2	\$2.2
12. Harm Reduction Interventions	\$38.1	\$7.7	\$7.7	\$7.0
13. PDMPs	\$0.7	\$0.7	\$0.7	\$0.7
14. Research	\$13.0	\$13.0	\$13.0	\$13.0
15. Law Enforcement	\$57.0	\$57.2	\$57.2	\$57.2
<b>TOTAL</b>	<b>\$452.9</b>	<b>\$281.8</b>	<b>\$382.6</b>	<b>\$344.5</b>